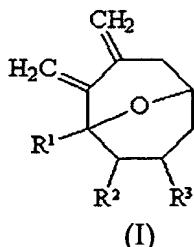


What is claimed is:

1. An 8-membered carbocyclic compound having diexomethylene groups which is represented by the following Chemical Formula 1:



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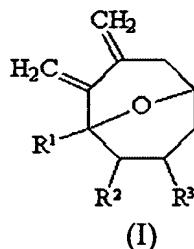
wherein R¹ is a phenyl group, and R² and R³ is respectively a hydrogen atom, or R¹, R² and R³ may be connected with neighboring substituents to form a 5 to 10-membered aliphatic or aromatic ring.

10 2. The compound according to Claim 1, wherein R¹ is a phenyl group, and R² and R³ is respectively a hydrogen atom.

15 3. The compound according to Claim 1, wherein R¹ and R² are connected with each other to form a 5 to 10-membered aliphatic or aromatic ring, and R³ is a hydrogen atom.

4. The compound according to Claim 1, wherein R² and R³ are connected with each other to form a 5 to 10-membered aliphatic or aromatic ring, and R¹ is a hydrogen atom.

5. A method of synthesizing the 8-membered carbocyclic compound having
diexomethylene groups, represented by the following Chemical Formula 1, from a
trimethylsilyl-methyl-allenol derivative by the intramolecular Prins cyclization in the
presence of Lewis acid:



wherein R¹ is a phenyl group, and R² and R³ is respectively a hydrogen atom, or R¹, R² and R³ may be connected with neighboring substituents to form a 5 to 10 10-membered aliphatic or aromatic ring.

6. The method according to Claim 5, wherein a solvent selected from the group consisting of diethyl ether, tetrahydrofuran, dichloromethane and chloroform is used as reaction solvent.

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7. The method according to Claim 5, wherein said Lewis acid is trimethylsilyl trifluoromethanesulfonate (TMSOTf) and is used in 1.0 to 1.5 equivalent of said trimethylsilylmethyl-allenol derivative.

8. The method according to Claim 5, wherein the reaction proceeds in the temperature range from -90 °C to room temperature of 25 °C.

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